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NOTICE OF ALLOWANCE AND FEE(S) DUE

38327 7590 09/03/2009

Juan Carlos A. Marquez
c/o Stites & Harbison PLLC
1199 North Fairfax Street
Suite 900
Alexandria, VA 22314-1437

EXAMINER

CHOUDHURY, AZIZUL Q

ART UNIT

PAPER NUMBER

2445

DATE MAILED: 09/03/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/772,709

01/29/2001

Yoshimitsu Aoyagi

07898-066001 /

2759

TITLE OF INVENTION: METHOD OF AUTOMATICALLY RECOGNIZING NETWORK CONFIGURATION INCLUDING INTELLIGENT PACKET RELAY EQUIPMENT, METHOD OF DISPLAYING NETWORK CONFIGURATION CHART, AND SYSTEM THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/03/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
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P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

38327 7590 09/03/2009

Juan Carlos A. Marquez
 c/o Stites & Harbison PLLC
 1199 North Fairfax Street
 Suite 900
 Alexandria, VA 22314-1437

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/772,709 01/29/2001 Yoshimitsu Aoyagi 07898-066001 / 2759

TITLE OF INVENTION: METHOD OF AUTOMATICALLY RECOGNIZING NETWORK CONFIGURATION INCLUDING INTELLIGENT PACKET RELAY EQUIPMENT, METHOD OF DISPLAYING NETWORK CONFIGURATION CHART, AND SYSTEM THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/03/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHOUDHURY, AZIZUL Q	2445	709-223000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,709	01/29/2001	Yoshimitsu Aoyagi	07898-066001 / PH-1029US	2759
38327	7590	09/03/2009	EXAMINER	
			CHOUDHURY, AZIZUL Q	
			ART UNIT	PAPER NUMBER
			2445	
DATE MAILED: 09/03/2009				

Juan Carlos A. Marquez
c/o Stites & Harbison PLLC
1199 North Fairfax Street
Suite 900
Alexandria, VA 22314-1437

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 506 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 506 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	09/772,709	AOYAGI ET AL.	
	Examiner	Art Unit	
	AZIZUL CHOUDHURY	2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/25/09.
2. ☒ The allowed claim(s) is/are 2-5,7-15,17 and 35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

/Azizul Choudhury/
Examiner, Art Unit 2445

/Patrice Winder/
Primary Examiner, Art Unit 2445

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Juan Carlos A. Marquez on August 28, 2009.

The application is amended as follows:

In the claims:

Please cancel claims 18-34.

Claim 2 (Currently amended) A method of automatically recognizing a network configuration, for automatically recognizing a device configuration on a network system having a network node including at least one or more intelligent network devices each implementing an SNMP agent and a management information base, the method comprising:

a first step of sending an ICMP echo request from an administrator terminal implementing an SNMP manager to individual network devices in the network node, and detecting existence and non-existence of network devices on the basis of responses therefrom, the administrator terminal implementing an SNMP manager, wherein the network devices include at least one device having plural IP addresses except for a router;

a second step of

creating plural different ~~SNP~~ SNMP messages each for inquiring whether or not the network devices support IP forwarding function and one

Art Unit: 2445

or more of management information bases included in each ~~SNMP~~ SNMP message wherein the management information bases (MIBs) include a bridge MIB[,] a repeater MIB and a printer MIB,

sending the plural SNMP messages one by one to the SNMP agents in network devices of which existence was detected to exist in the first step, and

detecting the types of the network devices in the network node based on information of success and failure of sending and receiving the plural SNMP messages and based on combinations of information stored in management information bases included in the received SNMP messages,

wherein the types of the individual network devices and roles of the individual network devices in the network node are determined based on the combinations of the information stored in the management information bases included in the received SNMP messages and wherein the type of device does not indicate the role of device primarily in terms of the device having the plural IP addresses except for the routers;

a third step of acquiring a set of physical addresses of network devices connected to ports of a network devices from the management information base of the network device, the network device being a type of device to have a bridge function;

a fourth step of acquiring information as to physical-[1 P] IP address correspondence from the management information base of a network device having a routing function; and

a fifth step of recognizing at an [XP] IP level the network devices connected to each of the ports of the network device having a bridge function, based on the acquired information as to physical-IP address correspondence.

Art Unit: 2445

Claim 17 (Currently amended) A system for automatically recognizing a network configuration, wherein an administrator terminal implementing an SNMP manager automatically recognizes a device configuration on a network system having a network node including at least one or more intelligent network devices each implementing an SNMP agent and a management information base, the administrator terminal implementing an SNMP manager comprising:

first means for sending an ~~RCMP~~ ICMP echo request to individual network devices in the network node, and detecting existence or non-existence of network devices on the basis of responses therefrom, wherein the network devices include at least one device having plural IP addresses except for a router;

second means for

creating plural ~~SNP~~ SNMP messages, each of the plural SNMP ~~is~~ messages inquiring whether or not the network devices support IP forwarding function and one or more of management information bases included in each SNMP message wherein the management information bases ~~(MIBs)~~ (MIBs) include a bridge ~~NIB~~ MIB, a repeater MIB and a printer MIB,

sending the plural SNMP messages one by one to the SNMP agents in network devices of which existence was detected by the first means, and

detecting the types of the network devices in the network node based on information of success and failure of sending and receiving the plural SNMP messages and based on combinations of information stored in the management information bases included in the received SNMP messages,

wherein the types of the individual network devices and roles of the individual network devices in the network node are determined based on

Art Unit: 2445

the combinations of the information stored in the management information bases included in the received SNMP messages and wherein the type of device does not indicate the role of device primarily in terms of the device having the plural IP addresses except for the router;

third means for acquiring a set of physical addresses of network devices connected to ports of a network device from the management information base of the network device, the network device being a type of device to have a bridge function;

fourth means for acquiring information as to physical-IP address correspondence from the management information base of a network device having a routing function; and,

fifth means for recognizing at an IP level the devices connected to each of the ports of the network device having a bridge function, based on the acquired information as to physical-IP address correspondence.

Claim 35 (Currently amended) A method of automatically recognizing a network configuration, for automatically recognizing a device configuration on a network system having a network node including at least one or more intelligent network devices each implementing an SNMP agent and a management information base, the method comprising:

a first step of sending an ICMP echo request from an administrator terminal implementing an SNMP manager to individual network devices in the network node, and detecting existence and non-existence of network devices on the basis of responses therefrom, wherein the network devices include at least one device having plural IP addresses except for a router; and,

a second step of

Art Unit: 2445

creating plural ~~SNP~~ SNMP messages, each of the plural SNMP messages inquiring whether or not the network devices support IP forwarding function and one or more of management information bases included in each SNMP message wherein the management information bases (MIBs) include a bridge MIB, a repeater MIB and a printer MIB,

sending the plural SNMP messages one by one to the SNMP agents in the network devices of which existence was detected in the first step, and

detecting the types of the network devices in the network node based on information of success and failure of sending and receiving the plural SNMP messages and combinations of information stored in management information bases included in the received SNMP messages, wherein the types of the individual network devices and roles of the individual network devices in the network node are determined based on the combinations of the information stored in the management information bases included in the received SNMP messages and wherein the type of device does not indicate the role of device primarily in terms of the device having the plural IP addresses except for the router.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: No prior art could be found to teach all of the claimed limitations. In particular, no prior art could be found to teach the claimed use of ICMP echo requests with an SNMP manager to detect presence information, device type information and support for IP forwarding for network devices wherein the network devices implement SNMP agents and a MIB. The MIB includes a bridge MIB, a repeater MIB and a printer MIB.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AZIZUL CHOUDHURY whose telephone number is (571)272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2445

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrice Winder/
Primary Examiner, Art Unit 2445

/A. C./
Examiner, Art Unit 2445